

AMENDMENTS TO THE CLAIMS:

Please amend Claims 1, 50, 76, 87, 130, 136, 142, 170, 214, 225, and 226 as follows.

Sub
Cl

1. (Currently Amended) An apparatus for providing an electrical signal corresponding to a ~~coordinate position on a screen surface designated by a light source~~ position corresponding to light having a cyclically varying intensity, said apparatus comprising:

a detection device that receives light emitted from ~~the~~ a light source, said detection device comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array, that each generate an output based on the intensity of light received from the light source at the respective element;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

threshold setting means for setting a threshold value ~~for the difference signal on~~ the basis of a level of the difference signal obtained from each photoelectric conversion element;

selection means for selecting effective photoelectric conversion elements based on the respective difference signal of each element and the threshold value; and

difference signal output means for outputting the difference signals corresponding to the effective photoelectric conversion elements selected by said selection means.

B1
cont

2. (Previously Presented) An apparatus according to claim 1, further comprising:
calculation means for calculating a coordinate based on the difference signals
output by said difference signal output means; and
coordinate output means for outputting a signal corresponding to the coordinate
calculated by said calculation means.

B1
cont

3. (Previously Presented) An apparatus according to claim 2, further comprising:
difference signal detecting means for detecting the photoelectric conversion
element having the largest difference signal,
wherein said threshold setting means sets the threshold value based on difference
signals of a predetermined number of photoelectric conversion elements adjacent to the
photoelectric conversion element having the largest difference signal.

4. (Previously Presented) An apparatus according to claim 3, wherein said
detection device comprises a linear array of photoelectric conversion elements; and
said threshold setting means sets the threshold value based on difference signals
corresponding to photoelectric conversion elements situated on both sides of the photoelectric
conversion element having the largest difference signal.

5. (Previously Presented) An apparatus according to claim 4, wherein said
threshold setting means sets the threshold value based on difference signals corresponding to two

photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

6. (Previously Presented) An apparatus according to claim 5, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the smaller difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

B1
cmt

7. (Previously Presented) An apparatus according to claim 5, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

8. (Previously Presented) An apparatus according to claim 4, wherein said threshold setting means identifies a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$, and

wherein said threshold setting means sets the threshold value based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

9. (Previously Presented) An apparatus according to claim 3, wherein said selection means selects a series of consecutive photoelectric conversion elements, including the photoelectric conversion element having the maximum difference signal, as the effective photoelectric conversion elements.

10. (Previously Presented) An apparatus according to claim 2, wherein said calculation means calculates a centroid position based on the difference signals of the effective photoelectric conversion elements, and

wherein the calculation means calculates a coordinate value based on the position of the centroid.

11. (Previously Presented) An apparatus according to claim 2, wherein said detection device further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein said threshold setting means sets a threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

12. (Previously Presented) An apparatus according to claim 11, wherein said threshold setting means controls the number of times that the integrations are performed by said integration means.

13. (Previously Presented) An apparatus according to claim 12, wherein said threshold setting means controls the integration means to perform the integrations until the value of the largest difference signal exceeds a predetermined value.

B1
cont

14. (Previously Presented) An apparatus according to claim 12, wherein said threshold setting means controls the integration means to perform the integrations a predetermined number of times.

15. (Previously Presented) An apparatus according to claim 11, further comprising:

skim means for reducing the output from the photoelectric conversion elements when the output from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceeds a predetermined value.

16. (Previously Presented) An apparatus according to claim 12, further comprising:

skim means for reducing the output from the photoelectric conversion elements when the output from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceeds a predetermined value.

17. (Previously Presented) An apparatus according to claim 13, further comprising:

skim means for reducing the output from the photoelectric conversion elements when the output from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceeds a predetermined value.

B1
amt
18. (Previously Presented) An apparatus according to claim 14, further comprising:

skim means for reducing the output from the photoelectric conversion elements when the output from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceeds a predetermined value.

19. (Previously Presented) An apparatus according to claim 15, wherein the respective output of each photoelectric conversion element is an electrical charge, and wherein said skim means removes a predetermined amount of electrical charge from the output of each photoelectric conversion element.

20. (Previously Presented) An apparatus according to claim 1, wherein the light source comprises a light-emitting element that projects a light spot onto the screen surface.

21. (Previously Presented) An apparatus according to claim 1, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

22. (Previously Presented) An apparatus according to claim 2, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

23. (Previously Presented) An apparatus according to claim 3, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

24. (Previously Presented) An apparatus according to claim 4, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

25. (Previously Presented) An apparatus according to claim 5, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

26. (Previously Presented) An apparatus according to claim 6, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

27. (Previously Presented) An apparatus according to claim 7, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

28. (Previously Presented) An apparatus according to claim 8, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

29. (Previously Presented) An apparatus according to claim 9, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

30. (Previously Presented) An apparatus according to claim 10, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

31. (Previously Presented) An apparatus according to claim 11, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

32. (Previously Presented) An apparatus according to claim 12, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

33. (Previously Presented) An apparatus according to claim 13, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

34. (Previously Presented) An apparatus according to claim 14, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

35. (Previously Presented) An apparatus according to claim 15, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

36. (Previously Presented) An apparatus according to claim 16, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

Bl
cont
37. (Previously Presented) An apparatus according to claim 17, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

38. (Previously Presented) An apparatus according to claim 18, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

39. (Previously Presented) An apparatus according to claim 19, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

40. (Previously Presented) An apparatus according to claim 1, wherein said detection means receives light diffused through the screen surface from the light source.

41. (Previously Presented) An apparatus according to claim 20, wherein said detection means receives light from the light source reflectively diffused through the screen surface.

42. (Previously Presented) An apparatus according to claim 1, wherein the cyclical variation of the intensity of the light source comprises alternating the intensity of the light source between a first and a second level.

43. (Previously Presented) An apparatus according to claim 42, wherein the second level corresponds to a state in which no light is emitted.

44. (Previously Presented) An apparatus according to claim 1, wherein the dimensions of the light source are arranged so that light emitted from the light source is incident on at least two photoelectric conversion elements of the plurality of photoelectric conversion elements of said detection device.

45. (Previously Presented) A coordinate input apparatus for generating a coordinate output signal corresponding to a predetermined position on a detection surface, comprising:

a detection device, comprising a plurality of photoelectric conversion elements arranged in a linear array, for receiving light emitted from a light source designating the predetermined position on the detection surface and having a cyclically varying intensity, each

photoelectric conversion element generating an output based on the intensity of light received from the light source at the respective element;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

threshold setting means for setting a threshold value for the difference signal;

selection means for selecting effective photoelectric conversion elements based on the respective difference signal of each element and the threshold value; and

coordinate output signal generating means for outputting a coordinate output signal based on difference signals corresponding to the effective photoelectric conversion elements selected by said selection means.

46. (Previously Presented) A coordinate input apparatus according to claim 45, wherein the threshold setting means sets a threshold value based on the mean value of the respective difference signals of the plurality of photoelectric conversion elements.

47. (Previously Presented) A coordinate input apparatus according to claim 45, further comprising:

difference signal detection means for detecting the photoelectric conversion element having the largest difference signal value; and

identifying means for identifying a number m of consecutive photoelectric conversion elements situated on either side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$,

wherein said threshold setting means sets the threshold value based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

48. (Previously Presented) A coordinate input apparatus according to claim 45, wherein said threshold setting means sets first and second threshold values for the difference signal, and said apparatus further comprising:

control means for controlling said selection means so that said selection means selects the effective photoelectric conversion elements based on the first and second threshold values.

49. (Previously Presented) A coordinate input apparatus according to claim 48, wherein said control means controls said selection means so that said selection means selects the effective photoelectric conversion elements based on a comparison between the first and second threshold values.

50. (Currently Amended) A method for providing an electrical signal corresponding to a ~~coordinate position on a screen surface designated by a light source~~ position corresponding to light having a cyclically varying intensity, comprising the steps of:

receiving light emitted from ~~the~~ a light source by using a plurality of photoelectric conversion elements, arranged in a predetermined physical array, that each generate an output based on the intensity of light received from the light source at the respective element;

generating, for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

setting a threshold value ~~for the difference signal~~ on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selecting effective photoelectric conversion elements based on the respective difference signal of each element and the threshold value; and

outputting the difference signals corresponding to the effective photoelectric conversion elements selected in said selecting step.

51. (Previously Presented) A method according to claim 50, further comprising the steps of:

calculating a coordinate based on the difference signals output in said outputting step; and

outputting a signal corresponding to the coordinate calculated in said calculating step.

52. (Previously Presented) A method according to claim 51, further comprising the step of:

detecting the photoelectric conversion element having the largest difference signal,

wherein the threshold value is set in said setting step based on difference signals of a predetermined number of photoelectric conversion elements positioned adjacent to the photoelectric conversion element having the largest difference signal.

53. (Previously Presented) A method according to claim 52, wherein a linear array of photoelectric conversion elements is used in said receiving step, and

wherein the threshold value is set in said setting step based on the difference signals corresponding to the photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal.

54. (Previously Presented) A method according to claim 53, wherein the threshold value is set in said setting step based on the difference signals corresponding to two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

55. (Previously Presented) A method according to claim 54, wherein the threshold value is set in said setting step based on the difference signal corresponding to the smaller difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

56. (Previously Presented) A method according to claim 54, wherein the threshold value is set in said setting step based on the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

57. (Previously Presented) A method according to claim 53, further comprising the step of:

identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$,

wherein the threshold value is set in said setting step based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

58. (Previously Presented) A method according to claim 52, wherein, in said selecting step, a series of consecutive photoelectric conversion elements, including the

photoelectric conversion element having the largest difference signal, are selected as the effective photoelectric conversion elements.

59. (Previously Presented) A method according to claim 51, further comprising the steps of:

calculating a centroid position based on the difference signals output in said outputting step; and

calculating a coordinate value based on the position of the centroid.

60. (Previously Presented) A method according to claim 51, wherein said detection step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein, in said setting step, the threshold value is set based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

61. (Previously Presented) A method according to claim 60, further comprising the step of controlling the number of times that the integrations are performed.

62. (Previously Presented) A method according to claim 61, wherein the integrations are performed until the value of the largest difference signal exceeds a predetermined value.

63. (Previously Presented) A method according to claim 61, wherein the integrations are performed a predetermined number of times.

64. (Previously Presented) A method according to claim 60, further comprising the step of:

reducing the outputs from the photoelectric conversion elements when the outputs from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceed a predetermined value.

65. (Previously Presented) A method according to claim 61, further comprising the step of:

reducing the outputs from the photoelectric conversion elements when the outputs from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceed a predetermined value.

66. (Previously Presented) A method according to claim 62, further comprising the step of:

reducing the outputs from the photoelectric conversion elements when the outputs from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceed a predetermined value.

67. (Previously Presented) A method according to claim 63, further comprising the step of:

reducing the outputs from the photoelectric conversion elements when the outputs from the photoelectric conversion elements at the second points in the cycle of variation of the light source exceed a predetermined value.

68. (Previously Presented) A method according to claim 64, wherein the respective output of each photoelectric conversion element is an electrical charge, and wherein the step of reducing the outputs comprises removing a predetermined amount of electrical charge from the respective output of each photoelectric conversion element.

69. (Previously Presented) A method according to claim 50, wherein the light source comprises a light-emitting element that projects a light spot onto the screen surface.

70. (Original) A method according to claim 50, wherein the light source comprises a light-emitting element positioned adjacent to the screen surface.

71. (Previously Presented) A method according to claim 50, wherein the light received in said receiving step is a diffused light passing through the screen surface from the light source.

72. (Previously Presented) A method according to claim 69, wherein the light received in said receiving step is a light from the light source reflectively diffused from the screen surface.

B1
cont

73. (Original) A method according to claim 50, wherein the cyclical variation of the intensity of the light source comprises alternating the intensity of the light source between a first and a second level.

74. (Original) A method according to claim 73, wherein the second level of the intensity of the light source corresponds to a state in which no light is emitted.

75. (Previously Presented) A method according to claim 50, wherein light emitted from the light source is incident on at least two of the plurality of photoelectric conversion elements.

76. (Currently Amended) A method for providing an electrical signal corresponding to a ~~coordinate position on a screen surface designated by a light source~~ position corresponding to light having a cyclically varying intensity, comprising the steps of:

receiving light emitted from ~~the~~ a light source by using a plurality of photoelectric conversion elements, arranged in a predetermined physical array, that each generate an output based on the intensity of light received from the light source at the respective element;

generating, for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

setting first and second threshold values ~~for the difference signals~~ on the basis of a level of the difference signal obtained from each photoelectric conversion element; and

determining whether a selection of effective difference signals is executed on the basis of the first and second threshold values.

77. (Previously Presented) A method according to claim 76, wherein the effective difference signals are determined in said determining step based on a comparison between the first and second threshold values.

78. (Previously Presented) A method according to claim 76, further comprising the steps of:

calculating a coordinate based on the effective difference signals; and
outputting a signal corresponding to the coordinate calculated in said calculating step.

79. (Previously Presented) A method according to claim 77, further comprising the steps of:

detecting the photoelectric conversion element having the largest difference signal, wherein the second threshold value is set in said setting step based on the difference signals of a predetermined number of photoelectric conversion elements positioned adjacent to the photoelectric conversion element having the largest difference signal; and selecting effective difference signals based on the second threshold value.

80. (Previously Presented) A method according to claim 79, wherein a linear array of photoelectric conversion elements is used in said receiving step, and

wherein the second threshold value is set in said setting step based on the difference signals corresponding to photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal.

81. (Previously Presented) A method according to claim 80, wherein the second threshold value is set in said setting step based on the difference signals corresponding to two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference data.

82. (Previously Presented) A method according to claim 81, wherein the second threshold value is set based on the difference signal corresponding to the smaller difference

signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

83. (Previously Presented) A method according to claim 81, wherein the second threshold value is set based on the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

84. (Previously Presented) A method according to claim 80, further comprising the step of:

identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the maximum difference signal being $2m$,

wherein the second threshold value is set in said setting step based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

85. (Previously Presented) A method according to claim 78, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein, in said setting step, the first and second threshold values are set based on the difference signals calculated from the integrated output values of the photoelectric conversion elements.

86. (Previously Presented) A method according to claim 76, wherein the first threshold value is set based on a mean of the generated difference signals.

B1
cont

87. (Currently Amended) A coordinate input method for generating a coordinate output data corresponding to a ~~predetermined position on a detection surface~~ a position corresponding to light, comprising the steps of:

receiving light, emitted from a light source designating the predetermined position on the detection surface and having a cyclically varying intensity, by using a plurality of photoelectric conversion elements, arranged in a linear array, that each generate an output based on the intensity of light received from the light source at the respective element;

generating, for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

setting a threshold value ~~for the difference signal~~ on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selecting effective difference signals based on the threshold value; and

outputting a coordinate output signal based on the effective difference signals selected in said selecting step.

88. (Previously Presented) A coordinate input method according to claim 87, wherein the threshold value is set in said setting step based on a mean value of the difference signals of the plurality of photoelectric conversion elements.

89. (Previously Presented) A coordinate input method according to claim 87, further comprising the steps of:

detecting the photoelectric conversion element having the largest difference signal; and

identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$, wherein the threshold value is set in said setting step based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

90. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 50.

91. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 51.

92. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 52.

93. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 53.

94. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 54.

95. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 55.

96. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 56.

97. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 57.

98. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 58.

99. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 59.

100. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 60.

101. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 61.

102. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 62.

103. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 63.

104. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 64.

105. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 65.

106. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 66.

107. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 67.

108. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 68.

109. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 69.

110. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 70.

111. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 71.

112. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 72.

113. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 73.

114. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 74.

115. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 75.

116. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 76.

117. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 77.

118. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 78.

119. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 79.

120. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 80.

121. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 81.

122. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 82.

123. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 83.

124. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 84.

125. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 85.

126. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 86.

127. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 87.

128. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 88.

129. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 89.

130. (Currently Amended) A selection device for use in a coordinate input apparatus for generating a coordinate output signal from output signals of an array of photoelectric conversion elements, the coordinate output signal corresponding to a ~~coordinate position on a screen surface designated by a light source~~ position corresponding to light having a cyclically varying intensity, said device comprising:

difference signal receiving means for receiving a difference signal for each photoelectric conversion element corresponding to a difference between the output of the

photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

threshold setting means for setting a threshold value ~~for the difference signal on~~
the basis of a level of the difference signal obtained from each photoelectric conversion element;

selection means for selecting effective difference signal signals based on the threshold value; and

output means for outputting the effective difference signals selected by said selection means.

131. (Previously Presented) A selection device according to claim 130, wherein the threshold setting means sets the threshold value based on a mean value of the difference signals.

132. (Previously Presented) A selection device according to claim 130, further comprising:

detection means for detecting the photoelectric conversion element having the largest difference signal value; and

identifying means for identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements

situated on both sides of the photoelectric conversion element having the largest difference signal being 2m,

wherein said threshold setting means sets the threshold value based on difference signals corresponding to the 2m identified photoelectric conversion elements and the largest difference signal.

133. (Previously Presented) A coordinate input apparatus, comprising:
a selection device according to claim 130; and
coordinate output signal generating means for outputting a coordinate output signal based on the effective difference signals selected by said selection means.

134. (Previously Presented) A coordinate input apparatus, comprising:
a selection device according to claim 131, and
coordinate output signal generating means for outputting a coordinate output signal based on the effective difference signals selected by said selection means.

135. (Previously Presented) A coordinate input apparatus, comprising:
a selection device according to claim 132, and
coordinate output signal generating means for outputting a coordinate output signal based on the effective difference signals selected by said selection means.

136. (Previously Presented) A selection method for selecting effective data for use in a method for generating a coordinate output signal from output signals of an array of photoelectric conversion elements, the coordinate output signal corresponding to a ~~coordinate position on a screen surface designated by a light source~~ position corresponding to light having a cyclically varying intensity, the selection method comprising the steps of:

receiving a difference signal for each photoelectric conversion element corresponding to a difference between an output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

setting a threshold value ~~for the difference signal~~ on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selecting effective difference signals based on the threshold value; and

outputting the effective difference signals selected in said selection step.

137. (Previously Presented) A selection method according to claim 136, wherein the threshold value is set in said setting step based on a mean value of the difference signals received in said receiving step.

138. (Previously Presented) A selection input method according to claim 136, further comprising the steps of:

- detecting the photoelectric conversion element having the largest difference signal value; and
- identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$,

wherein the threshold value is set in said setting step based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

139. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 136.

140. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 137.

141. (Previously Presented) A data carrier carrying processor-implementable instructions for carrying out a method according to claim 138.

142. (Currently Amended) An apparatus for providing an electrical signal corresponding to a position ~~on a screen surface designated by a light source~~ corresponding to light having a cyclically varying intensity, comprising:

display means for displaying an image on the screen surface;

detection means for receiving light from the screen surface and comprising a plurality of photoelectric conversion elements, arranged in a predetermined physical array, that each generate an output based on the intensity of light received from the light source at the respective element;

difference signal generating means for generating, for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

threshold setting means for setting a threshold value ~~for the difference signal~~ on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selection means for selecting effective photoelectric conversion elements based on the threshold value; and

coordinate output signal generating means for outputting a coordinate output signal based on the difference signals corresponding to the effective photoelectric conversion elements selected by said selection means.

143. (Previously Presented) An apparatus according to claim 142, wherein said detection means comprises a linear array of photoelectric conversion elements, and wherein said threshold setting means sets the threshold value based on difference signals corresponding to two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

144. (Previously Presented) An apparatus according to claim 143, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the smaller difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

145. (Previously Presented) An apparatus according to claim 143, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

146. (Previously Presented) An apparatus according to claim 143, wherein said threshold setting means sets the threshold value based on the difference signals of a predetermined number of photoelectric conversion elements adjacent to the photoelectric conversion element having the largest difference signal.

147. (Previously Presented) An apparatus according to claim 146, wherein said threshold setting means identifies a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$, and

wherein said threshold setting means sets the threshold value based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

148. (Previously Presented) An apparatus according to claim 142, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

149. (Previously Presented) An apparatus according to claim 143, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source

and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

150. (Previously Presented) An apparatus according to claim 144, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

151. (Previously Presented) An apparatus according to [any of] claim 145, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

152. (Previously Presented) An apparatus according to claim 146, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

153. (Previously Presented) An apparatus according to claim 147, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

154. (Previously Presented) An apparatus according to claim 142, wherein said detection means comprises a two-dimensional array of photoelectric conversion elements, and

wherein said threshold setting means sets the threshold value based on difference signals corresponding to a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

155. (Previously Presented) An apparatus according to claim 154, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the smaller difference signal of a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

156. (Previously Presented) An apparatus according to claim 154, wherein said threshold setting means sets the threshold value at the difference signal corresponding to the greater difference signal of a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

157. (Previously Presented) An apparatus according to claim 142, wherein said detection means comprises a two-dimensional array of photoelectric conversion elements, and wherein said threshold setting means sets the threshold value based on the difference signals of a predetermined number of photoelectric conversion elements adjacent to the photoelectric conversion element having the largest difference signal.

158. (Previously Presented) An apparatus according to claim 156, wherein said threshold setting means identifies a number m of contiguous photoelectric conversion elements

situated adjacent to the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the maximum difference signal being $2m$, and wherein said threshold setting means sets the threshold value based on difference signals corresponding to the identified photoelectric conversion elements and the largest difference signal.

159 through 164. (Cancelled)

165. (Previously Presented) An apparatus according to claim 154, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

166. (Previously Presented) An apparatus according to claim 155, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source

and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

167. (Previously Presented) An apparatus according to claim 156, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

168. (Previously Presented) An apparatus according to claim 157, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

169. (Previously Presented) An apparatus according to claim 158, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold setting means sets the threshold value based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

170. (Currently Amended) A method for providing an electrical signal corresponding to a position ~~on a screen surface designated by a light source~~ corresponding to light having a cyclically varying intensity, comprising the steps of:

displaying an image from the light source on the screen surface;

receiving light from the screen surface by using a plurality of photoelectric conversion elements, arranged in a predetermined physical array, that each generate an output based on the intensity of light received from the light source at the respective element;

for each photoelectric conversion element, a difference signal corresponding to a difference between the output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

setting a threshold value ~~for the difference signal~~ on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selecting effective photoelectric conversion elements based on the threshold value; and

outputting a coordinate output signal based on the difference signals corresponding to the selected effective photoelectric conversion elements.

171. (Previously Presented) A method according to claim 170, wherein a linear array of photoelectric conversion elements is used in said receiving step, and

wherein the threshold value is set in said setting step based on difference signals corresponding to two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

172. (Previously Presented) A method according to claim 171, wherein the threshold value is set in said setting step at the difference signal corresponding to the smaller difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

173. (Previously Presented) A method according to claim 171, wherein the threshold value is set in said setting step at the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

174. (Previously Presented) A method according to claim 170, wherein the threshold value is set in said setting step based on the difference signals of a predetermined number of photoelectric conversion elements adjacent to the photoelectric conversion element having the largest difference signal.

175. (Previously Presented) A method according to claim 174, further comprising the step of:

identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the largest difference signal being $2m$,

wherein the threshold value is set in said setting step based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

176. (Previously Presented) A method according to claim 170, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

177. (Previously Presented) A method according to claim 171, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

178. (Previously Presented) A method according to claim 172, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

179. (Previously Presented) A method according to claim 173, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

180. (Previously Presented) A method according to claim 174, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

181. (Previously Presented) A method according to claim 175, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

182. (Previously Presented) A method according to claim 170, wherein a two-dimensional array of photoelectric conversion elements is used in said receiving step, and

wherein the threshold value is set in said setting step based on difference signals corresponding to a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

183. (Previously Presented) A method according to claim 182, wherein the threshold value is set in said setting step at the difference signal corresponding to the smaller difference signal of a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

184. (Previously Presented) A method according to claim 182, wherein the threshold value is set in said setting step at the difference signal corresponding to the greater difference signal of a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

185. (Previously Presented) A method according to claim 170, wherein a two-dimensional array of photoelectric conversion elements is used in said receiving step, and wherein the threshold value is set in said setting step based on the difference signals of a predetermined number of photoelectric conversion elements adjacent to the photoelectric conversion element having the largest difference signal.

186. (Previously Presented) A method according to claim 185, further comprising the step of:
identifying a number m of contiguous photoelectric conversion elements situated adjacent to the photoelectric conversion element having the largest difference signal,
wherein the threshold value is set in said setting step based on difference signals corresponding to the identified photoelectric conversion elements and the largest difference signal.

187. (Previously Presented) A method according to claim 182, wherein said receiving step further comprises:
integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and
integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,
wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

188. (Previously Presented) A method according to claim 183, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

189. (Previously Presented) A method according to claim 184, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

190. (Previously Presented) A method according to claim 185, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

191. (Previously Presented) A method according to claim 186, wherein said receiving step further comprises:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

192. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 170.

193. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 171.

194. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 172.

195. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 173.

196. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 174.

197. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 175.

198. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 176.

199. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 177.

200. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 178.

201. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 179.

202. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 180.

203. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 181.

204. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 182.

205. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 183.

206. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 184.

207. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 185.

208. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 186.

209. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 187.

210. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 188.

211. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 189.

212. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 190.

213. (Original) A data carrier carrying instructions implementable by a processor for carrying out the method of claim 191.

214. (Currently Amended) A coordinate input apparatus for use with a processor provided with a display means capable of displaying images on a screen surface, the coordinate input apparatus comprising:

designation means for designating a position on the screen surface with a light source having a cyclically varying intensity;

detection means comprising a plurality of photoelectric conversion elements arranged in a predetermined physical array, for receiving light emitted from the light source and for providing an electrical output based on the received light; and

a data carrier carrying instructions implementable by the processor for carrying out the steps comprising:

calculating a difference signal for each photoelectric conversion element corresponding to a difference between an output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point;

setting a threshold value for the difference signal corresponding to each of the photoelectric conversion elements on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selecting effective photoelectric conversion elements based on the threshold value; and

generating a coordinate output signal based on the difference signals of the effective photoelectric conversion elements selected in said selecting step.

215. (Previously Presented) A coordinate input apparatus according to claim 214, wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step based on the difference signals of a predetermined number of

photoelectric conversion elements adjacent to the photoelectric conversion element having the largest difference signal.

216. (Previously Presented) A coordinate input apparatus according to claim 214, wherein said detection means comprises a linear array of photoelectric conversion elements, and

wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step based on difference signals corresponding to two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

B1
cnt
217. (Previously Presented) A coordinate input apparatus according to claim 216, wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step at the difference signal corresponding to the smaller difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

218. (Previously Presented) A coordinate input apparatus according to claim 216, wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step at the difference signal corresponding to the greater difference signal of the two photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest] difference signal.

219. (Previously Presented) A coordinate input apparatus according to claim 215, wherein the data carrier further carries processor implementable instructions for carrying out the step comprising:

identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal, with the total number of consecutive photoelectric conversion elements situated on both sides of the photoelectric conversion element having the maximum difference signal being $2m$,

wherein the threshold value is set in said setting step based on difference signals corresponding to the $2m$ identified photoelectric conversion elements and the largest difference signal.

B1
cont

220. (Previously Presented) A coordinate input apparatus according to claim 215, wherein the data carrier further carries processor implementable instructions for carrying out the step comprising:

integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source; and

integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source,

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

221. (Previously Presented) A coordinate input apparatus according to claim 215, wherein said detection means further comprises:

integration means for integrating the respective outputs of each photoelectric conversion element at a number of first points in successive cycles of variation of the light source and for integrating the respective outputs of each photoelectric conversion element at a number of second points in successive cycles of variation of the light source, and

wherein the threshold value is set in said setting step based on difference signals calculated from the integrated output values of the photoelectric conversion elements.

222. (Previously Presented) A coordinate input apparatus according to claim 214, wherein said detection means comprises a two-dimensional array of photoelectric conversion elements, and

wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step based on difference signals corresponding to a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

223. (Previously Presented) A coordinate input apparatus according to claim 222, wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step at the difference signal corresponding to the smallest difference signal of a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

224. (Previously Presented) A coordinate input apparatus according to claim 222, wherein the data carrier carries processor implementable instructions for setting the threshold value in said setting step at the difference signal corresponding to the greater difference signal of a number of photoelectric conversion elements equally spaced from the photoelectric conversion element having the largest difference signal.

225. (Currently Amended) A coordinate input apparatus according to claim ~~213~~ 214, wherein the data carrier further carries processor implementable instructions for carrying out the step comprising:

identifying a number m of consecutive photoelectric conversion elements situated on each side of the photoelectric conversion element having the largest difference signal,

wherein the threshold value is set in said setting step based on difference signals corresponding to the identified photoelectric conversion elements and the largest difference signal.

226. (Previously Presented) A coordinate input apparatus for use with a processor provided with a display means capable of displaying images on a screen surface, the coordinate input apparatus comprising:

designation means for designating a position on the screen surface with a light source having a cyclically varying intensity;

detection means comprising a plurality of photoelectric conversion elements arranged in a predetermined physical array, for receiving light emitted from the light source and for providing an electrical output based on the received light; and

instructions for operating the processor for carrying out the following steps:

calculating a difference signal for each photoelectric conversion element corresponding to a difference between an output of the photoelectric conversion element when the light source cycle is at a first point and an output of the photoelectric conversion element when the light source cycle is at a second point, the first point being at a higher intensity than the second point,

setting a threshold value for the difference signal on the basis of a level of the difference signal obtained from each photoelectric conversion element;

selecting effective photoelectric conversion elements based on the threshold value; and

generating a coordinate output signal based on the difference signals of the effective photoelectric conversion elements selected in said selecting step.

227. (Previously Presented) A coordinate input apparatus according to claim 226, wherein the instructions for operating the processor comprise a data carrier bearing processor implementable instructions.

228. (Previously Presented) A coordinate input apparatus according to claim 226, wherein the instructions for operating the processor comprise a data carrier.

229. (Previously Presented) A coordinate input apparatus according to claim 228, wherein the data carrier is a signal downloaded over a communication network.